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ABSTRACT

Due to cost factors, an educational institution may be willing to finance an individualized instructional system for only part of its student population. Three approaches to selectivity in individualization have been suggested: individualizing the most advanced courses, the first-year courses, or selecting those students who can profit from an individualized program. The third appears most reasonable in terms of potential benefit, but no means of selecting these students have been suggested. Data show that students in the outer extremes in mental ability benefit more from a self-paced program than those in the middle. Students could, therefore, be selected for an individualized program on the basis of a test of mental ability or aptitude. The cognitive style maps of students can also be used as a criterion for selection. Research indicates that certain elements must be present in one's cognitive style map to profit from independent study, programmed materials, and individual tutoring sessions: (1) theoretical auditory linguistic; (2) theoretical visual linguistic; (3) qualitative code synnoetics (knowledge of oneself) and qualitative code ethic; (4) an individual cultural determinant; (5) magnitude processes of deriving meaning; and (6) relationship processes of deriving meaning. (Author/KM)

INDIVIDUALIZED INSTRUCTION AND THE STUDENTS WHO NEED IT MOST

Jane Harper

Many educators have now accepted individualized instruction as a possible means of assisting students to gain mastery of the objectives of their courses and would like to implement an individualized program in their institutions. However, the necessary components of a self-paced, multi-mediated system are initially more expensive than is the standard equipment of a traditional lecture classroom. Such elements as (1) open learning laboratories equipped for independent use of audio tapes, video tapes, slides, filmstrips, films, and film loops, (2) software in a variety of auditory and visual formats, (3) programmed texts and workbooks, (4) individual testing facilities, (5) storage space for materials for each student, (6) software reproduction facilities, (7) flexible learning spaces for large-group, small-group, and individual activity, (8) differentiated staffing to include paraprofessional assistants, clerical aides, tutors, and media personnel as well as master teachers are often prohibitive in cost for implementation of an individualized learning program for all students.

Due to these cost factors, an educational institution may be willing to finance an individualized instructional system for only part of the student population. What criteria should then be used in selecting the students to be included in the individualized program? Grittner and LaLeike[1] suggest three possibilities:

(1) by individualizing the most advanced courses in a sequence,
(2) by individualizing the first-year courses in a sequence, or
(3) by individualizing selectively, differentiating between those students who can and those who cannot profit from an individualized program.

The third alternative appears to be the most reasonable in terms of potential benefit to students. However, no means of determining which students can profit most from individualization have been suggested.

Consideration should be given to some possible sources of information which can be used in making that decision. A study of beginning students of French at Tarrant County Junior College (Fort Worth, Texas) indicated that students in the upper one-third and those in the lower one-third of the group in mental ability made significantly more progress in speaking, reading, and writing than did a control group taught in regularly-scheduled classes using audio-lingual methods and group-paced laboratory sessions. The students in the middle one-third of the sample in mental ability made significantly more progress than the control group only in speaking. (See Tables I, II, and III.)[2] These data show that students in the outer extremes in mental ability benefitted more from the self-paced program than did those in the middle group. Therefore, one possible way of selecting students for inclusion in an individualized system is by administering a test of mental ability or scholastic aptitude and choosing the students whose scores are very high or very low.

TABLE I

COMPARISON OF UPPER EXPERIMENTAL GROUP AND UPPER CONTROL GROUP ON CHANGE IN LANGUAGE COMPETENCE

TEST	GROUP	MEAN SCORE CHANGE	t
Listening Comprehension	Experimental	10.2000	0.2910
	Control	9.0000	
Speaking	Experimental	42.4000	5.6766*
	Control	22.2500	
Reading	Experimental	15.5000	2.5477*
	Control	3.5833	
Writing	Experimental	18.6000	0.9689
	Control	10.4167	
Composite	Experimental	86.7000	3.5501*
	Control	45.2500	

* Significant at .05

TABLE II

COMPARISON OF MIDDLE EXPERIMENTAL GROUP AND MIDDLE CONTROL GROUP ON CHANGE IN LANGUAGE COMPETENCE

TEST	GROUP	MEAN SCORE CHANGE	t
Listening Comprehension	Experimental	8.6000	0.0611
	Control	8.3520	
Speaking	Experimental	41.2000	8.9190*
	Control	20.4118	
Reading	Experimental	6.8000	1.9632
	Control	1.1176	
Writing	Experimental	6.6000	1.9632
	Control	1.1176	
Composite	Experimental	63.2000	3.5866*
	Control	35.4706	

* Significant at .05

TABLE III

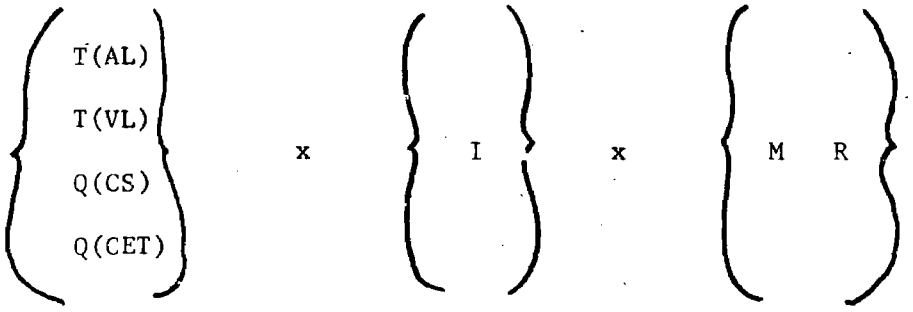
COMPARISON OF LOWER EXPERIMENTAL GROUP AND LOWER CONTROL GROUP ON CHANGE IN LANGUAGE COMPETENCE

TEST	GROUP	MEAN SCORE CHANGE	t
Listening Comprehension	Experimental	7.2500	0.0080
	Control	7.2222	
Speaking	Experimental	33.4167	4.5870*
	Control	21.2222	
Reading	Experimental	9.2500	2.4314*
	Control	2.2222	
Writing	Experimental	14.3333	2.1123*
	Control	4.3333	
Composite	Experimental	64.2500	5.1496*
	Control	35.0000	

* Significant at .05

Another source of information which can be used in making the decision as to which students should be included in the individualized program is the cognitive style maps of the students. Research led by Hill and Nunney[3] at Oakland Co-munity College (Bloomfield Hills, Michigan) indicates that several items need to be present in one's cognitive style map in order for him to enjoy and to profit from independent study, programmed materials, and individual tutoring sessions, components of most individualized instructional programs.

Figure 1



The students whose maps include these elements --
The essential elements are: (1) theoretical auditory linguistic (the sound of words), (2) theoretical visual linguistic (the written word), qualitative code synnoetics (knowledge of oneself), and qualitative code ethic (commitment to a set of values) in the acquisition of meaning; (4) an individual cultural determinant; and (5) magnitude (categorical) and (6) relationship processes of deriving meaning. The students whose maps include these elements would be more likely to benefit from individualization than would students in whose maps these elements are not found. (See Figure 1.)

NOTES

[1]Frank M. Grittner and Fred H. LaLeike, Individualized Foreign Language Instruction (Skokie, Illinois: National Textbook Company, 1973), p. 18.

[2]Jane Harper, The Development and Evaluation of a Multi-Media Self-Instructional Package in Beginning French at Tarrant County Junior College, Unpublished doctoral dissertation, East Texas State University, 1971.

[3]Joseph E. Hill and Derek N. Nunney. Personalizing Educational Programs Utilizing Cognitive Style Mapping (Bloomfield Hills, Michigan: Oakland Community College Press, 1971), p. 9.

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